

Proposal # 2001- <u>L203</u> (Office Use Only)
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PSP Cover Sheet (Attach to the front of each proposal)Proposal Title: White Mallard Dam and associated diversionsApplicant Name: California Waterfowl AssociationContact Name: Robert CapriolaMailing Address: 132-B North Enright Ave. Willows, CA 95988Telephone: (530) 934-9182Fax: (530) 934-8667Email: robcap@inreach.comAmount of funding requested: \$ 84,938

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost _____

Federal cost _____

Cost share partners?

☒ Yes ☐ No

Identify partners and amount contributed by each AFRP \$500,000, CALFED \$750,000

Sacramento National Wildlife Refuge \$1,000,000

Indicate the Topic for which you are applying (check only one box).

- | | |
|--|--|
| <input type="checkbox"/> Natural Flow Regimes | <input type="checkbox"/> Beyond the Riparian Corridor |
| <input type="checkbox"/> Nonnative Invasive Species | <input type="checkbox"/> Local Watershed Stewardship |
| <input type="checkbox"/> Channel Dynamics/Sediment Transport | <input type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Flood Management | <input type="checkbox"/> Special Status Species Surveys and Studies |
| <input type="checkbox"/> Shallow Water Tidal/ Marsh Habitat | <input type="checkbox"/> Fishery Monitoring, Assessment and Research |
| <input type="checkbox"/> Contaminants | <input checked="" type="checkbox"/> Fish Screens |

What county or counties is the project located in? ColusaWhat CALFED ecozone is the project located in? See attached list and indicate number. Be as specific as possible 7.7 Butte-basin; Butte Sink

Indicate the type of applicant (check only one box):

- | | |
|--|--|
| <input type="checkbox"/> State agency | <input type="checkbox"/> Federal agency |
| <input type="checkbox"/> Public/Non-profit joint venture | <input checked="" type="checkbox"/> Non-profit |
| <input type="checkbox"/> Local government/district | <input type="checkbox"/> Tribes |
| <input type="checkbox"/> University | <input type="checkbox"/> Private party |
| <input type="checkbox"/> Other: _____ | |

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input checked="" type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> All chinook species |
| <input type="checkbox"/> White Sturgeon | <input type="checkbox"/> All anadromous salmonids |
| <input checked="" type="checkbox"/> Waterfowl and Shorebirds | <input type="checkbox"/> American shad |
| <input checked="" type="checkbox"/> Migratory birds | |
| <input type="checkbox"/> Other listed T/E species: _____ | |

Indicate the type of project (check only one box):

- | | |
|---|---|
| <input type="checkbox"/> Research/Monitoring | <input type="checkbox"/> Watershed Planning |
| <input type="checkbox"/> Pilot/Demo Project | <input type="checkbox"/> Education |
| <input checked="" type="checkbox"/> Full-scale Implementation | |

Is this a next-phase of an ongoing project? Yes x No _____
Have you received funding from CALFED before? Yes _____ No x

If yes, list project title and CALFED number: _____

Have you received funding from CVPIA before? Yes x No _____

If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):

AFRP Lower Butte Creek Project, Phase 1(b) Number 113328J024

By signing below, the applicant declares the following:

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

M. Robert McLandress, President CWA

Printed name of applicant

M. Robert McLandress

Signature of applicant

Executive Summary

White Mallard Dam and Associated Diversions CALFED/CVPIA Request: \$ 125,200

Applicant: California Waterfowl Association, Tax Identification Number: 94-1149574

Contact: Rob Capriola 132-B North Enright Ave, Willows, CA 95988

Phone or fax: (530) 934-9182, e-mail: robcap@inreach.com

Participants and Collaborators: CALFED, US Bureau of Reclamation (BOR), US Fish and Wildlife Service-Anadromous Fish Restoration Program (AFRP), California Department of Fish and Game (CDFG), Ducks Unlimited Inc. (DU), Jones and Stokes Associates (JSA), Ensign and Buckley Consulting Engineers (EB), National Marine Fisheries Service (NMFS, Reclamation District 1004 (RD 1004), Eric A. Foraker, White Mallard Duck Club.

Type of Project: Restoration Action-Next Phase of Previously Funded Project-Fish Screens

Applicability to CALFED and CVPIA goals: The project objectives are consistent with the following Ecosystem Restoration Program Plan (ERPP) fish passage objective: *"Develop a cooperative program to improve the upstream passage of adult spring-run chinook salmon and steelhead on Butte Creek"* (ERPP Volume II, page 272). The proposed project is also consistent with the ERPP high priority Stage 1 Action for Butte Creek: *"STAGE I ACTION: Improve fish passage at diversion dams either by providing alternative diversion structures that will allow removal of existing dams or by upgrading fish ladders and diversion screens."* (ERPP Volume II, page 272). The project objectives are also consistent with the following objectives listed for Butte Creek in the Revised Draft Restoration Plan for the AFRP: May 30, 1997: "Action #14: Establish a fish screen at White Mallard Dam".

Project Objectives and Description: This proposal is to complete engineering design, permitting, and bidder's assistance for fish passage improvements to the White Mallard Dam and associated diversions. The objective is to improve fish passage for anadromous fish in Butte Creek, a tributary to the Sacramento River, while maintaining the viability of agriculture and managed wetlands in the Butte Sink and surrounding area. Butte Creek supports the largest population of spring-run chinook salmon (FT, SE) in the Central Valley and provides water for habitat used annually by millions of resident and migrating waterfowl and shorebirds. This project has evolved from work completed by local landowners, in cooperation with state and federal resource agencies, as part of the *Lower Butte Creek Project*. Since 1996, over \$3,427,400 has been committed to planning and implementing the Lower Butte Creek Project including over \$500,000 from AFRP and \$750,000 from CALFED.

California Waterfowl Association (CWA) is currently under subcontract from Ducks Unlimited (DU) and Bureau of Reclamation (BOR) to provide engineering design, permitting and bidder's assistance for White Mallard Dam and Associated Diversions during 2000 and 2001. The original budget from BOR was estimated to cover the cost of these services for the White Mallard Dam, screen, and fish ladder. Planning efforts have resulted in an expanded scope of work in order to adequately protect juvenile fish from entertainment in diversions and pumps serving agricultural lands and managed wetlands dependent on the White Mallard Dam for setting stage. This expansion in scope will be partially funded by an existing CALFED grant for similar work east of Butte Creek, but a substantial shortfall still exists. CWA is requesting \$84,938 in grant funds to cover these costs and bring these improvements one step closer to implementation. Once completed, this phase will allow us to prioritize these improvements based on cost vs. ecosystem benefits and apply for funding with firm costs in hand. Construction of the fish ladder on White Mallard Dam and screens on the associated diversions can begin as soon as funds are allocated (applications for implementation will be submitted during the Spring 2001 PSP).

Monitoring and Assessment: The null hypothesis to be tested is that there is no significant difference between the population of Butte Creek fish existing before the construction of fish passage improvements and after improvements have been completed. Spawning surveys and collection of juvenile fish during migration in Butte Creek will be conducted by the California Department of Fish and Game as part of a long-term monitoring plan.

Project Description

1. Statement of the problem

a. Problem: Butte Creek hosts the single largest remaining run of spring-run chinook salmon in the Central Valley. In addition, fall-, and late-fall-run chinook salmon and steelhead trout exist in Butte Creek. As late as the 1960's, Butte Creek regularly supported over 4,000 adult spring-run chinook salmon, a lesser number of fall- and late-fall-run, and a small number of steelhead trout (Campbell and Moyle 1990). From the mid-1960's until 1995, the spring-run chinook populations have ranged from fewer than 200 adults to over 1000 (CDFG 1998). This decline in numbers has resulted in the listing of spring-run chinook salmon as *Threatened* (Federal) and *Endangered* (State). The fall-run chinook salmon population varies between a few fish to as many as 1,000 (CDFG 1993). The decline of Butte Creek's chinook salmon and steelhead is attributed to inadequate flows, unscreened diversions, inadequate passage over diversion dams, unblocked agricultural return drains that attract and strand adult fish, poor water quality, declining availability of adequate spawning gravel, and poaching. The major diversion dams and fish passage problems on Butte Creek have been identified by numerous planning efforts (CDFG 1993, JSA 1998, USFWS 1997) and fish ladders and screens have been installed on several major diversions between the Butte Sink and Chico. Significant fish passage problems still exist in Butte Creek from the Butte Sink through the Sutter Bypass (Figure 1), and this proposal addresses one of these structures (near top of figure) and the diversions that depend on this structure for setting stage (Figure 1a). Under this proposal, engineering design, permitting, and bidders' assistance will be completed, giving the stakeholders firm costs with which to base proposals for construction in 2002.

b. Conceptual Model: The conceptual model being used assumes that the long-term decline in salmonid populations in the Sacramento-San Joaquin system is due primarily to human manipulation of the hydrologic conditions and geomorphic processes that effect salmon survival (Figure 2). This model assumes relatively stable conditions in the ocean rearing and growth portion of the salmon life-cycle and that improvements to migration and survival conditions for fish in the inland portion of their life-cycle will result in improved population numbers. Surveys conducted by CDFG (CDFG 1998) show that spawning habitat in Butte Creek is under-utilized by the current average run of fish. The limiting factors in the population can now be reduced to adequate flows for migration and survival, predation of adult and juvenile fish, and to fish passage barriers that delay, injure, and prevent fish from reaching spawning habitat. Actions that minimize the effect of these factors *should* result in an increase in population for the target species. Actions for Butte Creek have been identified and prioritized in recent plans (CDFG 1993, CDFG 1998, USFWS 1997, USFWS 2000) and implementation is underway. This proposal encompasses one of these recommended actions and will contribute to species survival by reducing delay of adult migration (laddering) and by increasing survival of juveniles (screening of diversions). On the Healey Ladder of the Adaptive Management Process, this project falls under "Implement Large-Scale Restoration".

c. Hypothesis Being Tested: In accordance with the assumptions regarding limiting factors outlined above, improvements to fish passage should result in greater survival of adult and juvenile fish thereby increasing the salmon population in Butte Creek. The null hypothesis to be tested is that there is no significant difference between the population of Butte Creek fish existing before the construction of fish passage improvements and after improvements have been completed. Baseline surveys of spawning adult salmon exist and yearly surveys will be continued (CDFG 1998). In addition, surveys of juvenile survival and migration are being conducted at various locations throughout the watershed.

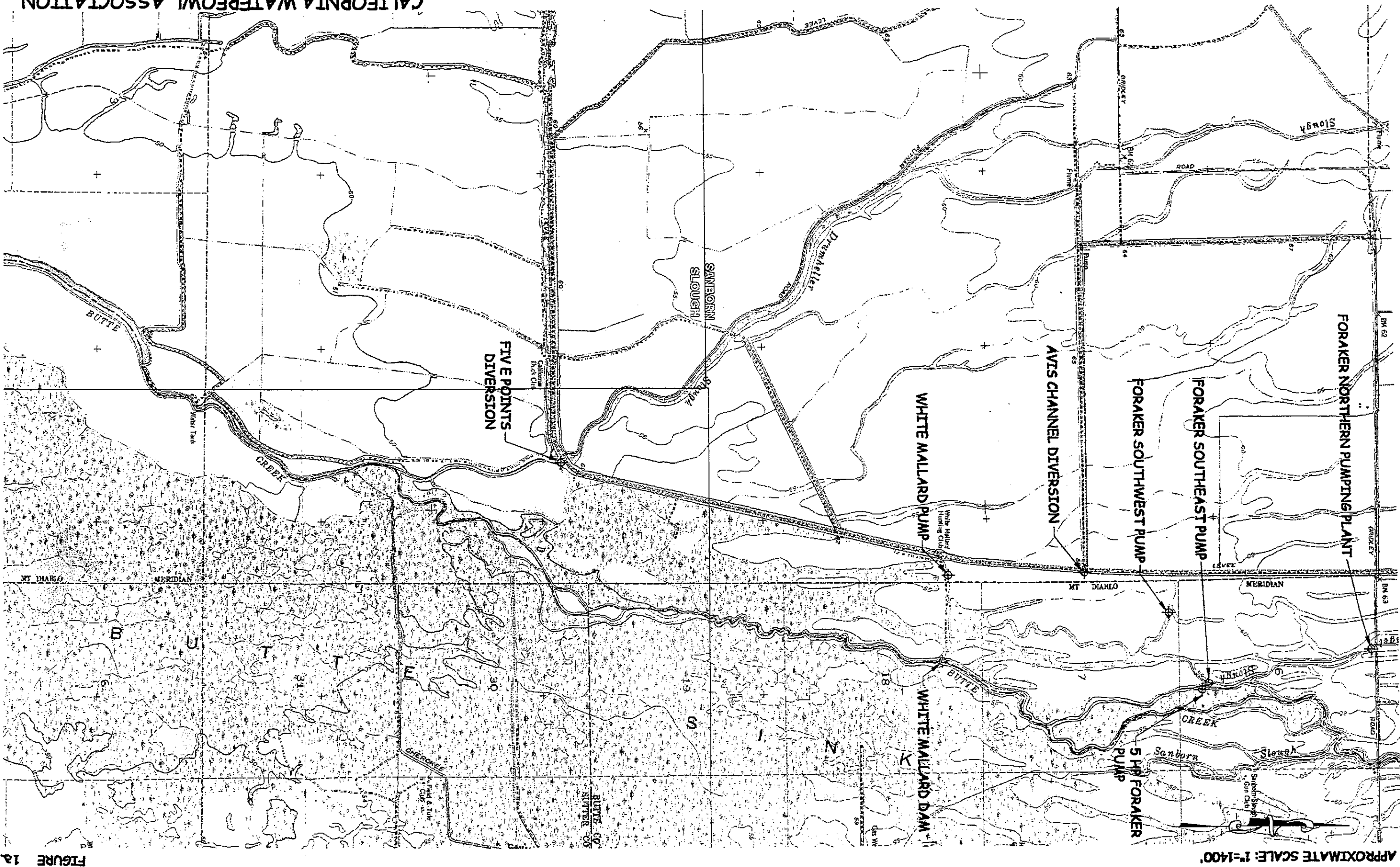


FIGURE 1A

APPROXIMATE SCALE: 1"=1400'

Chinook Salmon Life Cycle

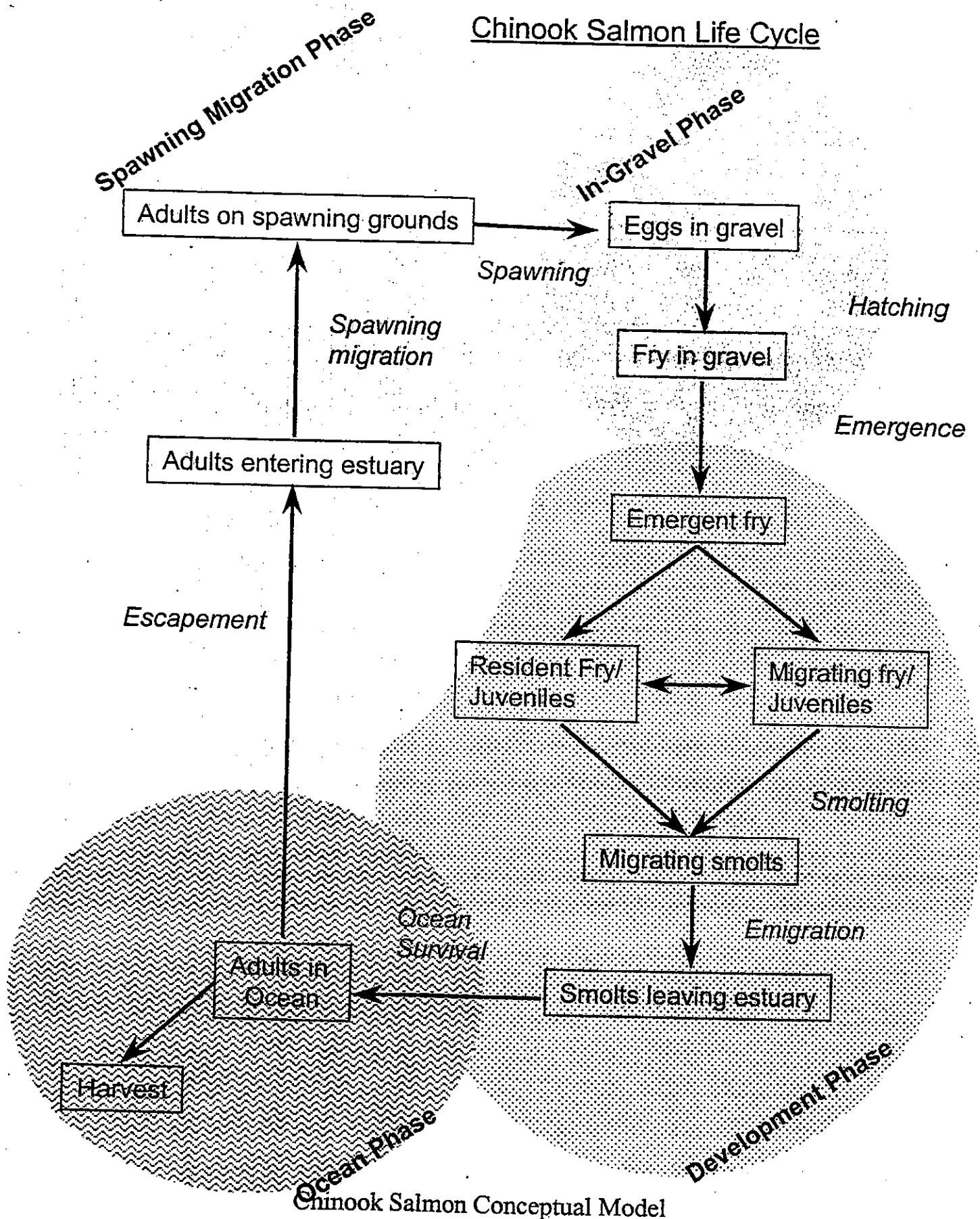


FIGURE 2

Improvements to fish passage should have significant effects on populations as measured by these two sampling techniques. Results of spawning and juvenile surveys will be published periodically by CDFG and cooperating agencies. Fish passage at the completed structures will be evaluated and compared with unimpeded reaches, and hydraulic conditions will be measured to determine optimal settings for fish passage.

d. Adaptive Management: Flows to improve fish passage in Butte Creek have been secured and significant improvements to fish passage barriers in the upper reaches of Butte Creek have been completed (JSA 1998, USFWS 2000). A recent water exchange agreement requires minimum of 40cfs of dedicated flows will be maintained in Butte Creek for fish passage. Fishing for salmon in Butte Creek has been prohibited. Laddering and screening of diversions has begun. Spawning surveys have indicated a significant increase in the population since 1995 (CDFG 1998, USFWS 2000). These results indicate that completion of planned improvements in these areas may further improve fish population levels. Existing plans for the restoration of fish runs put high priority on fish passage improvements including the White Mallard Dam and associated diversions. If these improvements are made, and no further increases in population levels are observed, further investigations regarding limiting factors in the population may be warranted. Augmentation of spawning habitat, instream flows, and harvest management may be required to meet the recovery goals of the AFRP and CALFED.

e. Educational Objectives: This project will increase understanding of CALFED and AFRP's goals by demonstrating that implementation of fish passage improvements can have ecosystem benefits as well as benefits to local water and land users. This approach to ecosystem restoration is the foundation of the Lower Butte Creek Project, and the White Mallard Dam and associated diversions would be among the first of many planned projects to be implemented that benefit both managed wetland habitat and wildlife-friendly farming practices. Stakeholders and regulating agencies have been closely involved in all facets of planning and implementation and will be using this project as a model of cooperation for similar projects throughout the entire Bay-Delta Watershed.

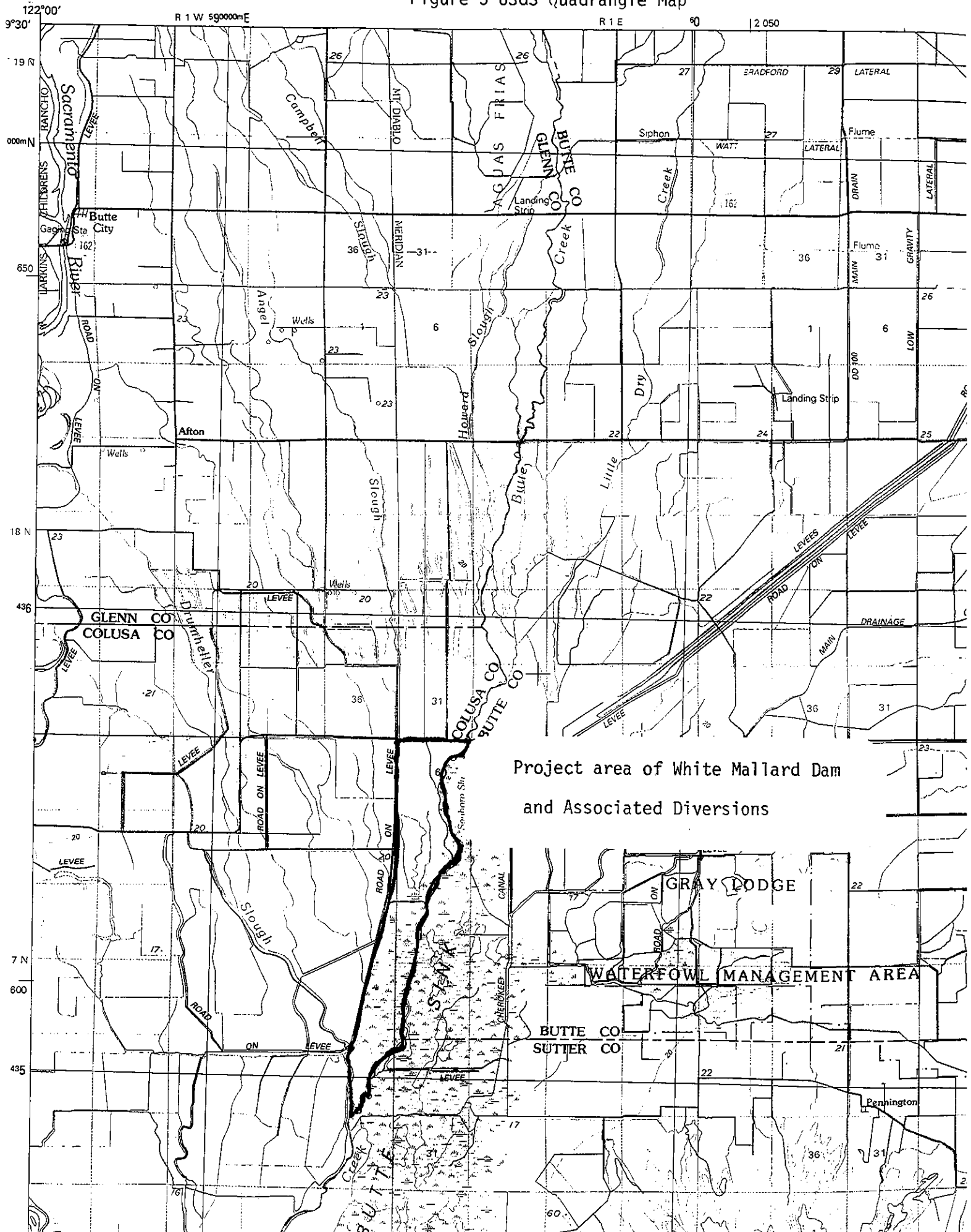
2. Proposed Scope of Work

a. Location and Geographic Boundaries: The White Mallard Dam and associated diversions are located just west of Butte Creek below the Gridley-Colusa Highway, in Colusa County. The center point of the project area is at the White Mallard (39° 19' N. Lat., 121° 56' W. Long.). This site is in the Butte Basin Ecological Zone (area 7.7:Butte Sink). The White Mallard Dam is approximately five miles east of the Sacramento River and less than one mile south of the Gridley/Colusa Highway (Figure 3).

b. Approach: This project is the next phase of a previously funded project. Previous funding from AFRP and CALFED has supported stakeholder development, existing conditions reports and alternative analysis reports. This is primarily an implementation project based on the studies and plans noted above. There are currently 16 major diversions remaining on Butte Creek, of which four have been upgraded or are currently under contract for screening and ladder replacement. The Lower Butte Creek Project was initiated to deal with fish passage issues associated with the remaining 12 structures not under contract. The 12 structures are located downstream of McPherrin Dam on lower Butte Creek and include the structures in the Butte Sink, Butte Slough and the Sutter Bypass. Phase I of the Project worked with the owners and operators of the 12 structures to develop a list of fish passage alternatives

YUBA CITY, CALIFORNIA

Figure 3 USGS Quadrangle Map



Project area of White Mallard Dam
and Associated Diversions

GRAY LODGE
WATERFOWL MANAGEMENT AREA

BUTTE CO
SUTTER CO

which maintained the viability of associated agriculture and managed wetlands uses. With the completion of Phase I, several data gaps were identified and addressed with funding from AFRP (Phase I(b)). These data were required to begin the full technical analysis and design being conducted in Phase II of the project. This proposal is to complete the Phase II tasks for the White Mallard Dam and Associated Diversions. Detailed budgets, task descriptions, and scope of work can be found in the **COST** section below.

Most of the 12 structures are operated by groups of stakeholders including local irrigation districts, reclamation districts, water user associations, California Department of Water Resources (DWR) and U.S. Fish and Wildlife Service (FWS). Many of the structures are operated by one or more of the stakeholders as part of a larger delivery system. Planning and choosing structural alternatives for the White Mallard Dam and associated diversions took place during 1997 through early 1999. In addition to supplying the engineering and environmental services required for implementation, Phase II will continue to work with these groups to develop partnerships to act as a lead agencies for each structure or groups of structures. The lead agencies will then be responsible for the completion of Phase III (construction) of the Projects.

c. Monitoring and Assessment Plan: Monitoring and data collection will provide the information necessary to evaluate the effectiveness of fish passage improvements in increasing the populations of anadromous fish in the watershed. Prior to construction of selected sites, monitoring plans will be developed to include the following items: experimental design, target species and life stages; sampling season; sampling gear; parameters measured; sampling design and locations; data processing and analyses; and data storage and presentation.. Objectives and approach of monitoring and assessment are summarized below.

Biological/Ecological Objectives There are two primary objectives of the monitoring task:

- 1) Determine if adult chinook salmon and steelhead are blocked or hindered in their upstream migration past the upgraded White Mallard Dam and fish ladder.
- 2) Determine if design and operation of the White Mallard Dam and associated diversions meet proposed hydraulic standards for fish passage.

Related questions, hypotheses, assumptions, issues, and limitations include:

- Do adult salmon and steelhead build up in large numbers below the new fish ladder?
- Are approaches to the ladder constructed so as to allow confident approach and detection of the ladder entrance by the fish?
- What are the optimal settings for structure controls under various flows that optimize fish passage at the structure.

Monitoring Parameters and Data Collection Monitoring will consist of two components: adult and juvenile salmon and steelhead passage and hydraulic assessment. **Table 1** summarizes the hypothesis to be tested, data collection, and data evaluation approaches to monitoring for these sites.

Table 1. Summary of Monitoring and Data Collection Information

Biological/Ecological Objectives: Reduce or eliminate delay and injury to Butte Creek adult and juvenile salmon and steelhead at the White Mallard Dam and associated diversions.			
Hypothesis/ Question to be Evaluated	Monitoring Parameter(s) and Data Collection Approach	Data Evaluation Approach	Comments/ Data Priority
Is adult salmon and steelhead passage hindered by the White Mallard Dam?	Rate of passage of adult salmon and steelhead by observations of adult fish at the White Mallard Dam and in unimpeded reaches.	Compare rate of migration of salmon and steelhead adults at White Mallard Dam with unimpeded reaches.	Priority for sampling spring-run adults in late winter through spring.
What hydraulic conditions and structure configurations significantly increase adult salmon and steelhead passage at the White Mallard Dam?	Measure flow and velocities at various stage heights and structure configurations.	Compare velocities to published standards and structure configurations and correlate with rates of adult salmon steelhead passage.	Priority for sampling spring-run adults in late winter through spring.
Are juvenile fish being entrained in the diversions dependent on White Mallard Dam?	Measure sweeping velocities and hydraulic conditions at newly screened diversions.	Compare velocities to published standards and structure configurations	Priority for sampling spring-run juveniles in late winter through spring

Adult and Juvenile Passage: Adult passage monitoring will consist of observations during key migration times under normal or controlled flow conditions when the structures are functional (there is no need or capability to monitor during flood conditions). Key times will be winter when spring-run chinook and steelhead ascend the river, late spring (usually in late May and early June) when late spring-run and early fall run appear in numbers, and in the fall (October into December) when fall-run chinook salmon ascend the river. Observations will consist of visual notes of fish concentrations at the ladder and downstream of the ladder, and how effectively the fish appear to approach and ascend the ladder with particular attention on their ability to detect the entrance to the ladder.

Visual observations of fish passage will be recorded in notebooks and summarized by event, season, hydrology conditions, and operational conditions. Rate of travel past the structure and success of travel will be the primary parameters compared between unimpeded sections of the river and the project reach. Data/progress reports will be prepared for each year of the study, and one overall adult fish passage report will be prepared at the completion of the study.

Hydraulic Assessment: Hydraulic assessment will consist of observations during key migration

times under controlled flow conditions. Parameters will include velocity and flow measurements on the downstream side of the structure taken at various stage heights and structure configurations. Velocity and flow measurements gathered under various controlled-flow conditions will be compared with standard fish passage criteria for similar structures and correlated with observations of adult fish passage. These comparisons will allow the managers of the structure to configure the fish ladder and controls to optimize conditions for fish passage. Data/progress reports will be prepared for each year of the study, and one overall hydraulic assessment report will be prepared at the completion of the study.

d. Data Handling and Storage: Data handling and storage will be detailed in the Monitoring and Assessment plan prior to beginning data collection.

e. Expected Products/Outcomes:

- Quarterly reports beginning 4/1/01 through 10/1/01 detailing task accomplishments and fiscal expenditures to funding agencies.
- Presentation of progress reports on semi-annual basis to local stakeholders including landowners, water user groups, and regulatory agencies.
- Presentation of progress reports at monthly Spring-run Workgroup meetings.

f. Work Schedule

Table 2. Summary of task schedules including start/completion dates and deliverables

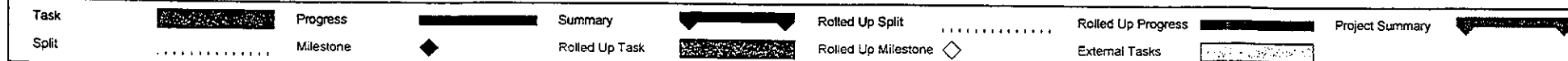
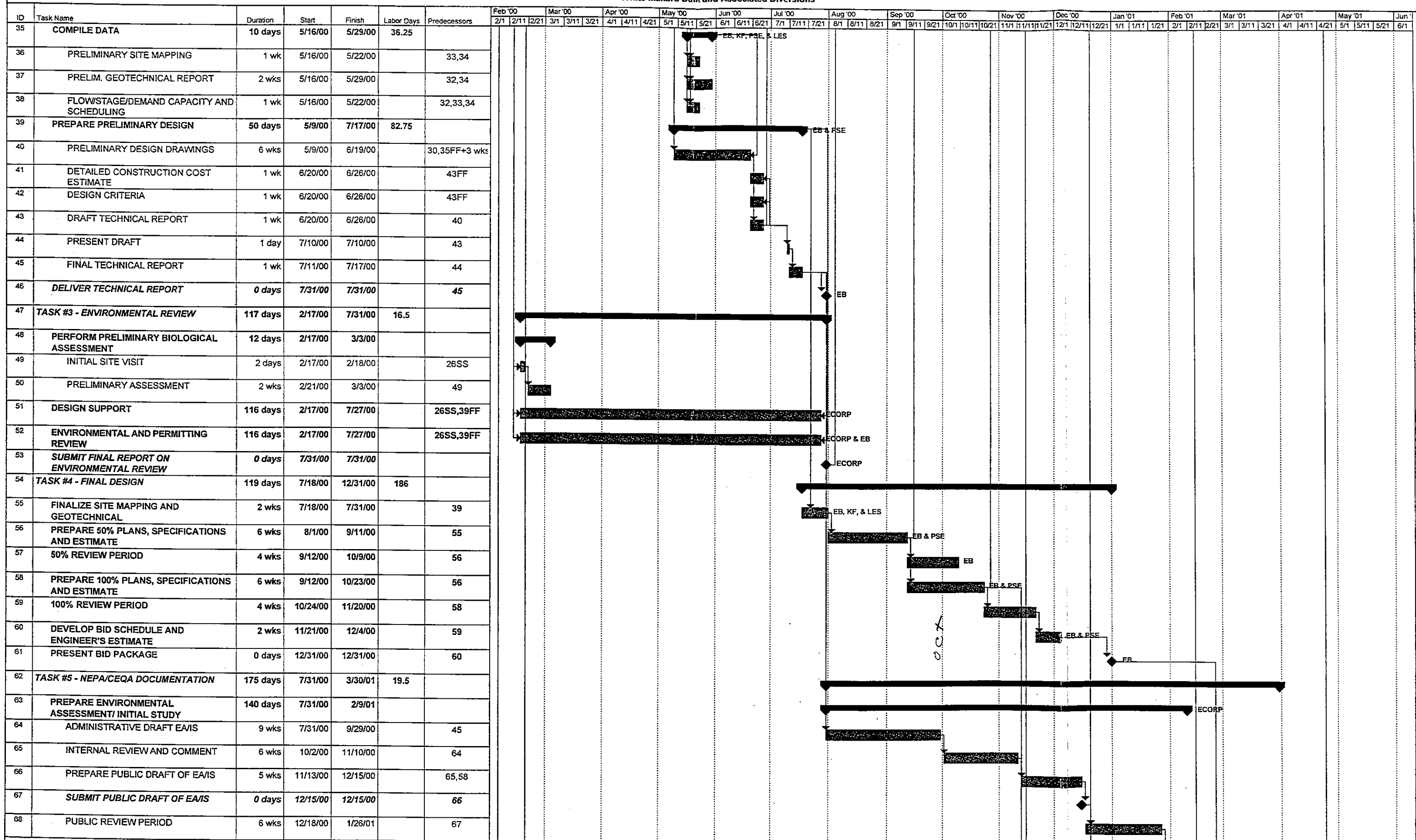
Task	Start Date	Completion Date	Deliverables
Existing Conditions Report and preliminary site investigations	Nov. 1, 1998	May 31, 1999	Phase 1 Final Report(completed) Site locations mapped (completed) Preliminary cost estimates (completed) Environmental Review (completed)
Project Management	April 1, 2000	Sept. 30, 2001	Facilitate Stakeholder involvement, Prepare Request for Proposals, submit quarterly reports, ensure completion of deliverables under other tasks
Task 1. Engineering Design, Permitting and Bidder's Assistance	April 1, 2000	June 1, 2001	Final engineered design, securing of all necessary permits, receipt of fixed-cost bids for construction

Work on preliminary design for these structures has begun under a contract from BOR through DU to CWA. The consulting engineering firm of Ensign and Buckley of Sacramento was selected to complete this phase of work by a competitive bid process. Their detailed schedule for completion of engineering design, permitting, and bidders' assistance is found in Figure 4.

g. Feasibility: The feasibility of completing the scope of work for this project during the proposed timeline is extremely high. Planning efforts instituted in earlier phases of the project have gotten approval from the affected stakeholders and regulating agencies. Watershed groups throughout the Central Valley are apprised of the progress of the planning and construction efforts. Access is

Proposed Project Schedule
White Mallard Dam and Associated Diversions

Figure #2



Task		Progress		Summary		Rolled Up Split		Rolled Up Progress		Project Summary	
Split		Milestone		Rolled Up Task		Rolled Up Milestone		External Tasks			

Task		Progress		Summary		Rolled Up Split		Rolled Up Progress		Project Summary	
Split		Milestone		Rolled Up Task		Rolled Up Milestone		External Tasks			

guaranteed under site-specific agreements currently being negotiated with the landowners (see Appendix). These operators will ensure adequate fish passage and monitoring and assessment funded under this proposal will optimize flows for fish passage.

End of Section

Applicability to CALFED ERP Goals and Implementation Plan and CVPIA Priorities

1. ERP Goals and CVPIA Priorities : The proposed project would provide benefits that are consistent with the goals and objectives of (1) the CALFED Ecosystem Restoration Program Plan and Conservation Strategy; and (2) the CVPIA-Anadromous Fish Restoration Program. Goals and objectives of these programs addressed by the proposed project include the following:

- Restore anadromous fish populations of Butte Creek.
- Reduce stressors on fish and wildlife and their habitats.
- Develop community awareness of the linkage between agricultural viability and natural resource protection.
- Develop alternatives to protect and restore floodplain resources and reduce stressors.
- Develop alternatives to maintain and enhance agricultural economic viability in concert with habitat and floodplain restoration activities.
- Provide technical information and flood control consistency analysis methods that can be applied to other similar areas.

The project objectives are consistent with the following ERPP fish passage objective: *"Develop a cooperative program to improve the upstream passage of adult spring-run chinook salmon and steelhead on Butte Creek "* (ERPP Volume II, page 272). The proposed project is also consistent with the ERPP high priority Stage 1 Action for Butte Creek: *"STAGE 1 ACTION: Improve fish passage at diversion dams either by providing alternative diversion structures that will allow removal of existing dams or by upgrading fish ladders and diversion screens."* (ERPP Volume II, page 272). The project objectives are also consistent with the following objectives listed for Butte Creek in the Revised Draft Restoration Plan for the AFRP: May 30, 1997: Action #14: *"Install a fish screen at White Mallard Dam"*.

2. Relationship to Other Ecosystem Restoration Projects

This project is directly related to other ecosystem restoration projects in the Butte Creek Watershed and indirectly related to other ecosystem restoration projects throughout the Bay-Delta Watershed. Significant improvements for fish passage in the Butte Creek Watershed have been accomplished through CALFED and CVPIA actions within the last 10 years. A minimum of 40cfs instream flow below Centerville Diversion Dam has been dedicated for fish passage from October through June of each year. High volume fish ladders and screens have been constructed at Parrott-Phelan, Adams, Gorrill, and Butte Creek/Sanborn Slough Bifurcation (Bifurcation Structure dams. The McPherrin and McGowan dams have been removed, and the Western Canal Siphon has been constructed. With these improvements in place, the focus on improving fish passage has shifted to the lower reaches. The White Mallard Dam and associated diversions are just some of the many dams and diversions to be upgraded or removed as part of the Lower Butte Creek Project.

AFRP has funded stakeholder development and alternative analysis for the Lower Butte Creek Project through California Waterfowl Association. AFRP also funded the preliminary engineering and environmental analysis of the Bifurcation Structure through DWR and is currently funding the Drumheller Slough Outfall Adult Exclusion Barrier construction, project coordination, and facilitation through DU. CALFED and BOR are currently funding Final engineering and permitting of fish passage improvements at a multitude of sites throughout the Lower Butte Creek Project area. This

system-wide approach will ensure that fish will not navigate one barrier, only to be obstructed by another barrier either up or downstream.

3. Requests for Next-Phase Funding

As noted above, this proposal is for the implementation phase of the Lower Butte Creek Project previously funded by AFRP and CALFED. A *Summary of Efforts to Date* is included in the Appendix to this proposal.

4. Previous Recipients of CALFED or CVPIA Funding

California Waterfowl Association was the recipient of a \$243,000 grant from AFRP to fund watershed investigations, stakeholder development and alternatives formulation under the Lower Butte Creek Project, Phase 1b (FWS agreement # 11328J204). The project was administered through John Icanberry and the Sacramento/San Joaquin Estuary Fishery Resource Office in Stockton, CA. The grant/Cooperative Agreement was officially closed as of March 9, 2000 after CWA submitted the Final Progress Report and Final Financial Status Report. The accomplishments of this project are detailed in the *Summary of Efforts to Date* in the Appendix. CWA is currently under contract through DU to provide services under a grant from CALFED/BOR/CVPIA to provide engineering, environmental documentation, permitting, and cooperative agreements and construction services for structures in the Butte Sink (\$812,500). Competitive bidding has been completed and consultants have been selected for this phase. Work is progressing according to schedule completed bids for construction will be delivered by February 2001.

5. System-Wide Ecosystem Benefits

Once the proposed structures are completed, system-wide ecosystem benefits will be significant. Improved fish passage at these and other water control structures located in the lower reaches of Butte Creek is expected to improve the long-term sustainability of natural production of anadromous fish populations, in particular spring-run chinook salmon and steelhead. Screened diversions will enable water users to maintain managed wetland and agricultural habitats for migratory waterfowl and other resident wildlife species including special status species. The increased water management capabilities will enhance the habitat values of over 15,000 acres of managed wetland and agricultural habitats essential to a multitude of migratory and resident waterfowl, wading birds and other wetland-dependent wildlife. These lands include the White Mallard, Behring Ranch and Butte Ranch Duck Clubs, flooded rice habitat managed by Reclamation District 1004, and Erik Foraker. The net result of maintaining these habitats is improved health and long-term sustainability of the Bay-Delta ecosystem.

End of Section

Qualifications

CWA is the project manager under contract to Ducks Unlimited for the White Mallard Dam and Associated Diversions, and chairs the *Butte Sink Action Committee* for the Lower Butte Creek Project. The Habitat Department of CWA has extensive experience in managing construction projects relating to water resources and wetland habitat developments in California. With an annual gross budget exceeding \$6,000,000 per year and a staff of 35 individuals, CWA is well qualified to handle multi-task habitat projects. Staff in the Wetland, Waterfowl, Government Affairs, and Finance Departments are available to support this project and bring it to completion.

Project Management: Rob Capriola, CWA Assistant Director of Wetland Programs. Mr. Capriola came to work for CWA as a waterfowl habitat biologist in the spring of 1997, and has been coordinating the restoration and enhancement of wetlands on federal and state wildlife areas and duck clubs throughout the north Central Valley including lands within the Butte Sink and Sutter Bypass. Mr. Capriola came to CWA with six years of experience in fisheries and wetland project management and a Masters Degree in Natural Resource Management from Humboldt State University. Prior to his work with CWA, Mr. Capriola worked as a wetland biologist for Humboldt Bay National Wildlife Refuge, and was President and Co-founder of Pacific Coast Restoration, a private non-profit organization that implements fisheries and wetland restoration and enhancement projects on the north coast of California. He has been involved in the Lower Butte Creek Project since its inception in 1997, and is currently the CWA Program Manager for the project.

Mr. Capriola will be responsible for all project management, coordination, and facilitation duties. Specific subtasks include: 1) ensure stakeholder involvement in the decision-making process via coordination and facilitation of meetings with the stakeholders, DWR, CDFG, and USFWS; 2) hire consultants and contractors to complete the project design, permitting, construction, and monitoring for the project; 3) coordinate reimbursement for work completed with funding agencies and service providers; 4) develop access and operations agreements among the stakeholders; and 5) provide interim and final reports to the stakeholders and funding agencies on the project. As project manager, he will plan, schedule, over-see, and document all project activities, including contract services support and oversight.

Engineering Design, Permitting and Bidders' Assistance.

Ensign & Buckley Consulting engineers (EB) is a small engineering business specializing in a wide variety of water resources and related engineering projects. Within this specialized area of practice, EB provides consulting services in planning, design, and project management. They also have established teaming agreements with other complimentary firms that allow them to provide complete engineering packages for a wide variety of project requirements. The Principals of EB, Ferrel H. Ensign and John J. Buckley are registered Civil Engineers in California and maintain a staff of highly qualified professionals with a broad range of expertise and experience. EB staff is experienced in the practical design of irrigation distribution fish barriers, water control facilities and hydraulic structures. Their current clients include Reclamation District 1000, El Dorado Irrigation District, Natomas Mutual Water Company, Reclamation District 1004, the City and County of Sacramento, Sacramento Area Flood Control Agency and other districts and water companies. EB has provided design and construction management services to the above clients on numerous projects ranging in value from less than \$1000,000 to more than \$10,000,000.

Subconsultants:

ECORP Consulting, Inc. for NEPA/CEQA and permitting compliance. ECORP's biological resources staff is comprised of accomplished professionals, many with advanced academic degrees, offering state-wide experience in applying their expertise in aquatic and terrestrial sciences to designing and conducting assessments and permits of water development projects. Hall Freeman, MS is the ECORP Vice President in charge of this project. His clients include the US Army Corps of Engineers, U.S. Air Force, U.S. Bureau of Reclamation, California Department of Water Resources, California Department of Parks and Recreation, California Department of Forestry and Fire Protection, and county and local governments. In addition, ECORP has assisted and represented numerous private-sector clients in securing permits and documentation required for ecosystem restoration projects.

Kleinfelder for Geophysical investigations. Raymond Costa, Jr. is both a California licensed civil and geotechnical engineer with more than 22 years of project management experience. He has provided design, evaluation, and construction recommendation for hundreds of various projects throughout Northern California. Typical projects include pipeline and interceptor investigation, dam, levee, and flood control planning and analyses; roadway, bridge, and facility foundations, designs for residential, commercial, industrial, and recreational roads.

Landon Engineering and Surveying for Surveying and Mapping. W. Kent Jackson, PE has major project experience with both design and construction phases of sewer and water systems, subdivisions, irrigation distribution and drainage systems, bridge, street, and highway design, contract administration, construction, land and right-of-way surveys. Relevant experience include control surveys, design, and construction layout of 15,000 acre irrigation system facility for Kanawha Water District in Glenn County, California and for similar work for 12 miles of irrigation distribution system facilities for Colusa County Water District in Colusa County, California.

Power Systems Engineering for facility design. Jerry B. Bagley has over 35 years experience in preparing the design of logic and controls for pump stations, power stations and civil engineering projects. Relevant experience include designing electrical, control and telemetry system for Reclamation District 1004's 360 cfs diversion from Sacramento River and 3 diversions for the Haypress Hydroelectrical Project, and over 10 additional hydroelectric project and numerous pumping plants.

End of Section

Cost

Budget Narrative (See Table 3)

Task 1. Final Design, Permitting, and Bidders' Assistance (\$77,650 (\$71,173 plus \$6477 overhead))

Subtask 1a Stakeholder Meetings (\$18,924 from current BOR/AFRP/CALFED grant, \$0 new proposal)

Work cooperatively with landowners, regulatory agencies, resource agencies and other interested partners/parties; set up and attend meetings with partners to select options, review recommendations, and finalize designs for fish passage improvement structures. Hold at least two formal meetings with stakeholders to review alternatives and select a final design for each of the project components. In addition to the formal meetings, consultant will hold informal meetings with managers/operators for each site, regulatory agencies, resource agencies, technical committees and funding entities as required during the design process.

Deliverable: A summary report of the formal meetings and any subsequent meetings. The report will document meeting discussions, conclusions and attendance.

Subtask 1b Preliminary Design and Data Collection (\$98,964 from current BOR/AFRP/CALFED grant, \$0 proposed)

Perform preliminary engineering services required to provide site characterization, hydraulic analysis, geotechnical investigations and preliminary engineering in sufficient detail to identify/recommend fish passage or exclusion and flow control options for all the sites.

Deliverables: A technical report of preliminary engineering analysis for the structures identified in Task 1. The analysis shall include necessary site characterizations, channel capacities, site elevations, site location and orientation map, geo-technical data, water use and flow analysis, site development drawings in one reproducible vellum and 3 blue-line copies and a cost analysis for the construction. The technical report shall be due by September 30, 2000; 1 original bound copy, 3 bound copies and 1 electronic copy in Microsoft Word 97.

Subtask 1c Environmental Review (\$11,107 from current BOR/AFRP/CALFED grant, \$0 proposed)

Perform environmental services required to collect and develop the data for inventory and evaluation of environmental issues at each proposed construction site in a form suitable for permitting requirements and CEQA/NEPA compliance.

Deliverable: An environmental review report for each construction site which shall include a complete list of species present or affected, a list of all CEQA/NEPA issues raised and a list of permits required. The report shall be due by September 30, 2000; 1 original bound copy, 3 bound copies, and 1 electronic copy in Microsoft Word 97

Subtask 1d Final Design (\$78,932 from current BOR/AFRP/CALFED grant, \$31,364 proposed)

The final design will be completed on the alternative(s) selected in Task 1 and 2. The topographic and geotechnical data collected along with the fish criteria will be utilized in completing the final design for the selected alternative(s) The plans and specifications for each structure will be produced as separate documents. These documents will be included in the requests for bids and will allow construction to be completed under one contract or separately as funding for construction is available.

Table 3. Budget Table for Engineering Design, permitting and Bidders' assistance for White Mallard Dam and Associated Diversions

Year	Task	Direct Labor Hours	Subject to Overhead					O'head (9.1%)	Total Cost
			Salary \$25/hr	Benefits 20%	Travel \$0.315/mi	Supplies & Expendables	Service Contracts		
Year 1	Task 1								
	Subtask 1d						\$31,364		
	Subtask 1e						\$21,015		
	Subtask 1f						\$7,532		
	Subtask 1g						\$4,506		
	Subtask 1h						\$6,756		
	Subtotal						\$71,173	\$6,477	\$77,650
	Project Management	140	\$3,500	\$700	\$2,000	\$480		\$608	\$7,288
Total Project Cost			\$3,500	\$700	\$2,000	\$480	\$71,173	\$7,085	\$84,938

Deliverables: A complete set of plans and specifications including construction bid items, plan quantities and construction cost estimates for each structure selected in Task 1 and 2. Final Design will be due December 31, 2000. The plans shall consist of one 24"x36" vellum reproducible and 3 blue-line copies for each structure. The specifications shall be on 8 1/2" X 11" bond paper, double-sided copy in an unbound format, 3 bound copies, and 1 electronic copy in Microsoft Word 97.

Subtask 1e NEPA/CEQA Documentation and Permitting (\$21,015 proposed)

Complete NEPA/CEQA documentation, develop list of required permits, prepare and submit permit applications for construction of the project to all applicable agencies and respond to normal agency comments. The Consultant will pay the requested permit processing fees to the agencies.

Deliverable: A report summarizing the preliminary environmental findings at each site will be provided. The Draft and Final Initial Study / Environmental Assessment (IS/EA) documents, and ND/FONSI, will be submitted to the client and necessary reviewing agencies. Record of permit applications and comments. Report due by December 31, 2000

Subtask 1f Bidders Assistance (\$7,532 proposed)

Assist in preparing bid packages, organizing pre-bid conference and site inspections, responding to contractors questions, requesting and reviewing bids for construction of the listed fisheries upgrades.

Deliverable: Fixed bids for construction of all identified sites.

Subtask 1g Right of Access (\$4,506 new proposed)

Provide right of access letter signed by all affected landowners.

Deliverables: A signed access letter from each of the affected landowners at each of the Project sites received prior to beginning construction work on the sites.

Subtask 1h Project Management (\$6,756 proposed)

General responsibilities include coordination of tasks above with CWA, landowners, permitting agencies and funding agencies. Specific responsibilities include tracking budget expenditures, producing narratives accomplishments with monthly billings and distributing meeting minutes and deliverables under all other subtasks..

Project Management, Coordination, and Facilitation (\$7,288 (\$6,680 plus \$608 overhead)

CWA is the project manager for the White Mallard Dam and Associated Diversions project. Specific subtasks include:

- Ensure stakeholder involvement in the decision-making process via coordination and facilitation of meetings with the stakeholders, DWR, CDFG, NMFS;
- Hire consultants and contractors to complete the project design, permitting, bidders' assistance for the project;
- Coordinate reimbursement for work completed with funding agencies and service providers;
- Develop access and operations agreements among the stakeholders;
- Provide interim and final reports to the stakeholders and funding agencies on the project.

A CWA staff person will manage the project at varying degrees of intensity over the life of the project. The project coordinator will plan, schedule, over-see, and document all project activities, including contract services support and oversight. The coordinator will also guarantee the preparation of all communications, reports, and deliverables for the project. Direct labor hours required during Year 1 are estimated at 140 at a rate of \$25/hr., benefits at 20%, travel at \$0.315 / mile, and \$480 in office supplies, meeting support materials and field protective equipment. Year 1 total, including overhead for this task is \$7,288.

Cost-Sharing

Table 4 summarizes previous and current efforts at planning fish passage improvements to the White Mallard Dam, associated diversions, and other sites within the Lower Butte Creek Project area. This basin-wide effort enjoys broad-based support within stakeholder groups and agencies. Future cost-sharing is anticipated from California Department of Water Resources, Environmental Protection Agency, California Wildlife Conservation Board, private foundations, and the landowners and districts themselves.

Table 4. Cost-share components of the Lower Butte Creek Project and White Mallard Dam and Associated Diversions

Project Component	Date	Funding Source	Amount
Phase I --Existing conditions investigations & alternatives analysis	April 1997 to Sept 1999	AFRP Tracy Mitigation	\$364,000
Phase II --Engineering Design and Permitting/Cooperative Agreements	Oct 1999 to June 2001	AFRP, BOR Tracy Mitigation, CALFED	\$1,796,400
Phase III --Construction & Monitoring			
Bifurcation Structure, Phase 1	Oct 1998 to Jan 2000	AFRP, USFWS-Sac. National NWRC	\$1,067,000
Drumheller Slough Exclusion Barrier	Oct 1998 to Jan 2000	AFRP	\$200,000
White Mallard Dam and Associated Diversions	Feb. 2001 to Dec 2003	Grant Request	\$84,938
		Total Cost	\$3,512,338
		Partner Contributions	\$3,427,400
Grant Request			\$84,938

Acronyms

AFRP- Anadromous Fish Restoration Program (Central Valley Project Improvement Act)

BOR – Bureau of Reclamation

USFWS – Sacramento National Wildlife Refuge-1997 Emergency Flood Supplemental

CALFED - California-Federal Bay/Delta Program-Directed Action “Habitat Restoration in Floodplains and Marshes” category.

Tracy Mitigation – California Water Project Mitigation Fund

End of Section

Local Involvement

California Waterfowl Association, the Nature Conservancy, Ducks Unlimited, the Butte Sink Waterfowl Association, Foraker Properties, and Reclamation District 1004, and the White Mallard Duck Club have worked closely together over the past three years in planning the upgrade of these structures with local, state and federal resource agencies. These entities have attended numerous meetings with consultants to determine fish passage and water management needs and problems. Local support for the completion of this phase of the project is extremely high because it will allow stakeholders and regulators to prioritize funding for construction based on known costs and predicted benefits for each dam or diversion.

Compliance with Standard Terms and Conditions

The applicant has reviewed and understands the standard terms contained in Attachments D (State) and E (Federal) that were included in the ERP 2001 Proposal Solicitation Package and agrees to comply with these state and federal standard terms.

Literature Cited

- Campbell, E. A., and P. B. Moyle. 1990. Historical and recent population of spring-run chinook salmon in California. Pages 155-216 in: Proceedings, 1990 Northeast Pacific Chinook and Coho Salmon Workshop.
- CDFG (California Department of Fish and Game). 1993. Restoring Central Valley Streams: a plan for action. Inland Fisheries Division Sacramento.
- CDFG (California Department of Fish and Game). 1998. A status review of the spring-run chinook salmon in the Sacramento River drainage. Candidate species status report 98-01.
- JSA (Jones and Stokes Associates, Inc). 1998. Lower Butte Creek Project final project report. June 30, 1998 (JSA 97-248). Sacramento, Calif. Prepared for the Nature Conservancy, Sacramento, Calif.
- USFWS (U.S. Fish and Wildlife Service). 1997. Revised draft restoration plan for the anadromous fish restoration program. May 30, 1997. Prepared for the Secretary of the Interior by the U.S. Fish and Wildlife Service with assistance from the Anadromous Fish Restoration Program Core Group. Stockton Calif.
- USFWS (U.S. Fish and Wildlife Service). 2000. Draft Programmatic Environmental Assessment for Anadromous Fish Restoration Actions in the Butte Creek Watershed. Prepared for the Sacramento-San Joaquin Estuary Fishery Resource Office, U.S. Fish and Wildlife Service. Stockton, Calif. by the Sacramento Fish and Wildlife Office. U.S. Fish and Wildlife Service. Sacramento, Calif.

Threshold Requirements

(Follow this page in this order)

Letters of Notification
Environmental Compliance Checklist
Land Use Check List
Nondiscrimination Compliance
Standard Form 424



Conserving California's waterfowl, wetlands, and waterfowling heritage.

Robert Capriola
Assistant Director, Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows, CA 95988
(530) 934-9182

David Kelley
Colusa County Planning Director
220 12th ST.
Colusa, CA 95932

May 13, 2000

Dear Mr. Kelley,

I have enclosed copies of two proposals our organization is submitting to CALFED under the May proposal solicitation. The projects include upgrading the Butte Creek/Sanborn Slough Bifurcation Structure and completing design, permitting and bidder's assistance for the White Mallard Dam and Associated Diversions. The Bifurcation project will complete a structure that was partially built during 1999 with flood appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek, Butte County has also been notified. The engineering studies and permits will allow improvements to diversion structures to improve fish passage for lands west of Butte Creek near the Butte Sink. I have also sent a similar package to Colusa County Planning Division

Please feel free to call me if you have any questions about the project. I can also be reached via e-mail: robcap@inreach.com.

Sincerely,


Robert Capriola



**California
Waterfowl
Association**

4630 Northgate Blvd.
Suite 150
Sacramento, CA 95834

TEL: (916) 648-1406
FAX: (916) 648-1665



Conserving California's waterfowl, wetlands, and waterfowling heritage.

Robert Capriola
Assistant Director, Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows, CA 95988
(530) 934-9182

Cathleen Moran
Colusa County Clerk to the Board of Supervisors
546 Jay St.
Colusa, CA 95932

May 13, 2000

Dear Ms. Moran,

I have enclosed a copy of two proposals our organization is making to CALFED under the May proposal solicitation. The projects include upgrading the Butte Creek/Sanborn Slough Bifurcation Structure and completing design, permitting and bidder's assistance for the White Mallard Dam and Associated Diversions. The Bifurcation project will complete a structure that was partially built during 1999 with flood appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek, Butte County has also been notified. The engineering studies and permits will allow improvements to diversion structures to improve fish passage for lands west of Butte Creek near the Butte Sink. I have also sent a similar package to Colusa County Planning Division

Please feel free to call me if you have any questions about the project. I can also be reached via e-mail: robcap@inreach.com.

Sincerely,


Robert Capriola



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Robert Capriola
Assistant Director, Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows, CA 95988
(530) 934-9182

Marion Reeves
Butte County Clerk to the Board of Supervisors
25 County Center Drive
Oroville, CA 95965

May 13, 2000

Dear Ms. Reeves,

I have enclosed a copy of a proposal our organization is making to CALFED for upgrading the Butte Creek/Sanborn Slough Bifurcation Structure. The project will complete a structure that was partially built during 1999 with flood appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek, Colusa County has also been notified. I have also sent a similar package to Tom Parillo in the Butte County Planning Division.

Please feel free to call me if you have any questions about the project. I can also be reached via e-mail:
rob@calwaterfowl.com

Sincerely,


Robert Capriola



**California
Waterfowl
Association**

4630 Northgate Blvd.
Suite 150
Sacramento, CA 95834

TEL: (916) 648-1406
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Robert Capriola
Assistant Director, Wetlands Department
California Waterfowl Association
132-B N. Enright St.
Willows, CA 95988
(530) 934-9182

Tom Parillo
Planning Division
Butte County
7 County Center Drive
Oroville, CA 95965

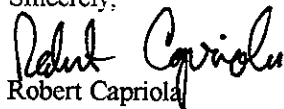
May 13, 2000

Dear Mr. Parillo,

I have enclosed a copy of a proposal our organization is making to CALFED for upgrading the Butte Creek/Sanborn Slough Bifurcation Structure. The project will complete a structure that was partially built during 1999 with flood appropriations from the Sacramento National Wildlife Refuge. Since the project straddles Butte Creek, Colusa County has also been notified. I have also sent a similar package to the Butte County Clerk for the Board of Supervisors.

Please feel free to call me if you have any questions about the project. I can also be reached via e-mail:
robcap@inreach.com.

Sincerely,


Robert Capriola



**California
Waterfowl
Association**

4630 Northgate Blvd.
Suite 150
Sacramento, CA 95834

TEL: (916) 648-1406
FAX: (916) 648-1665

Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?

YES

X
NO

- 2. If you answered yes to # 1, identify the lead governmental agency for CEQ A/NEPA compliance.**

Lead Agency

- 3. If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.**

Actions in the proposal include site surveying and design work for fish ladders and screens. No permits that would trigger CEQA or NEPA compliance are required for this work. Full CEQA and NEPA documentation and permits would be required for construction.

4. If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.

5. Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?

X
YES

NO

If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

LOCAL

Conditional use permit	_____	
Variance	_____	
Subdivision Map Act approval	_____	
Grading permit	_____	
General plan amendment	_____	
Specific plan approval	_____	
Rezone	_____	_____
Williamson Act Contract cancellation	_____	
Other _____		
(please specify)		
None required	_____	X

STATE

CESA Compliance	_____	(CDFG)
Streambed alteration permit	_____	(CDFG)
CWA § 401 certification	_____	(RWQCB)
Coastal development permit	_____	(Coastal Commission/BCDC)
Reclamation Board approval	_____	
Notification	_____	(DPC, BCDC)
Other _____		
(please specify)		
None required	_____	X

FEDERAL

ESA Consultation	_____	(USFWS)
Rivers & Harbors Act permit	_____	(ACOE)
CWA § 404 permit	_____	(ACOE)
Other _____		
(please specify)		
None required	_____	X

DPC = Delta Protection Commission
 CWA = Clean Water Act
 CESA = California Endangered Species Act
 USFWS = U.S. Fish and Wildlife Service
 ACOE = U.S. Army Corps of Engineers

ESA = Endangered Species Act
 CDFG = California Department of Fish and Game
 RWQCB = Regional Water Quality Control Board
 BCDC = Bay Conservation and Development Comm.

Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Do the actions in the proposal involve physical changes to the land (i.e. grading, planting vegetation, or breeching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?

YES

X
NO

2. If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).

Actions included in the proposal are for site surveying and design only.

3. If YES to # 1, what is the proposed land use change or restriction under the proposal?

4. If YES to # 1, is the land currently under a Williamson Act contract?

YES

NO

5. If YES to # 1, answer the following:

Current land use

Current zoning

Current general plan designation

6. If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?

YES

NO

DON'T KNOW

7. If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?

8. If YES to # 1, is the property currently being commercially farmed or grazed?

YES

NO

9. If YES to #8, what are

the number of employees/acre _____

the total number of employees _____

10. Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)?

YES

X
NO

11. What entity/organization will hold the interest? n/a

12. If YES to # 10, answer the following:

Total number of acres to be acquired under proposal

Number of acres to be acquired in fee

Number of acres to be subject to conservation easement

13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:

manage the property

provide operations and maintenance services

conduct monitoring

14. For land acquisitions (fee title or easements), will existing water rights also be acquired?

YES

NO

15. Does the applicant propose any modifications to the water right or change in the delivery of the water?

YES

$$\frac{X}{NO}$$

16. If YES to # 15, describe _____

NONDISCRIMINATION COMPLIANCE STATEMENT

STD. 19 (REV. 3-95) FMC

COMPANY NAME

California Waterfowl Association

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME

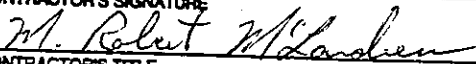
M. Robert McLandress, PhD.

DATE EXECUTED

5-12-00

EXECUTED IN THE COUNTY OF
Sacramento

PROSPECTIVE CONTRACTOR'S SIGNATURE



PROSPECTIVE CONTRACTOR'S TITLE

President

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

California Waterfowl Association

OMB Approval No. 0348-0043

Previous Edition Usable

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

SECTION A - BUDGET SUMMARY						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1.		\$	\$	\$ 84,937	\$	\$ 84,937
2.						
3.						
4.						
5. Totals		\$	\$	\$	\$	\$

SECTION B - BUDGET CATEGORIES

Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY					Total (5)
	(1)	(2)	(3)	(4)	(5)	
a. Personnel	\$	3,500	\$	\$	\$	\$
b. Fringe Benefits		700				
c. Travel		2,000				
d. Equipment						
e. Supplies		480				
f. Contractual		71,173				
g. Construction						
h. Other						
i. Total Direct Charges (sum of 6a-6h)		77,853				
j. Indirect Charges		7,085				
k. TOTALS (sum of 6i and 6j)	\$	84,938	\$	\$	\$	\$
7. Program Income	\$	\$	\$	\$	\$	\$

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Previous Edition Usable

Standard Form 424A (Rev. 7-97)
Prescribed by OMB Circular A-102

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8.	\$	\$	\$	\$	
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)	\$	\$	\$	\$	
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 84,938	\$ 40,000	\$ 44,938	\$	\$
14. Non-Federal					
15. TOTAL (sum of lines 13 and 14)	\$ 84,938	\$ 40,000	\$ 44,938	\$	\$
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16.	\$ 84,938	\$	\$	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 84,938	\$	\$	\$	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges: \$77,853	22. Indirect Charges: \$7085				
23. Remarks:					

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL		TITLE
<i>M. Robert McLondon</i>		President, California Waterfowl Assn.
APPLICANT ORGANIZATION		DATE SUBMITTED
California Waterfowl Association		5-13-00

APPENDIX

Summary of Efforts to Date
Access Agreement

SUMMARY OF EFFORTS TO DATE: LOWER BUTTE CREEK PROJECT

GOAL: " The Lower Butte Creek Project is a stakeholder-driven, grassroots effort that has focused on developing mutually beneficial and acceptable alternatives to improve fish passage while maintaining the viability of agriculture, seasonal wetlands and other habitats. Butte Creek has one of the largest runs of spring-run chinook in the Central Valley, as well as fall-run chinook and steelhead. Butte creek also supplies water to thousands of acres of agricultural lands and managed wetlands that greatly benefit resident and migratory wildlife including vast numbers of waterfowl, shorebirds, and neotropical songbirds. Significant wetland habitats within the project area include over 20,000 acres of privately managed riparian wetlands in the Butte Sink Wildlife Management Area. The U.S. Fish and Wildlife Service also manages the Butte Sink National Wildlife Refuge and Sutter National Wildlife Refuge using Butte Creek water. Improvements to fish passage in the upper watershed have already been accomplished at sites between Chico, California and the Butte Sink. A number of studies and planning have identified significant barriers to fish passage in the lower reaches of the creek, including the Butte Creek/ Sanborn Slough Bifurction Structure, White Mallard Dam and 11 other major diversion structures. The proposed project will replace these structures with modern structures that include fish ladders for adult passage and screens to prevent juvenile salmonids from being entrained in pumps and agricultural fields. These structures are essential for maintaining managed wetlands and flooded agricultural habitats required by the large numbers of wintering waterfowl and shorebirds that inhabit the Butte Sink and associated areas.

PROJECT AREA: Butte Creek from the Gridley-Colusa Highway on the north to Verona, near the confluence of the Feather and Sacramento Rivers on the South.

PHASE I Existing Conditions Report September 1997 through June 1998:

- Initiated by: The Nature Conservancy and California Waterfowl Association
- Funded by: California Department of Fish and Game and US Fish and Wildlife Service Anadromous Fish Restoration Program.
- Consultant: Jones and Stokes Associates.

Accomplishments:

- Developed stakeholder groups to guide the process
- Gathered information on existing conditions
- Developed draft alternatives for improving fish passage and water delivery
- Developed evaluation considerations for choosing alternatives
- Published Final Project Report June 30, 1998

PHASE 1b Alternatives Analysis September 1997 through October, 1999.

- Funded by: Anadromous Fish Restoration Program.
- Administered by: California Waterfowl Association.
- Consultants: Ducks Unlimited and Jones and Stokes Associates.

Accomplishments: Refined project alternatives for the following areas:

- Butte Creek and Sanborn Slough channel cross-section and capacity analysis
- Evaluation of fish passage conditions in the Butte Sink
- Evaluation of alternative Butte Creek water diversion sites and conveyance routes for Butte Sink

west of Butte Creek.

- Butte Slough Outfall gates analysis
- Analysis of water control structures at the east-west diversion weir and weir 5
- Analysis of Sutter Bypass/West borrow canal below weir 5
- Assessment of water use, seasonal demands, timing a, and management in the east-side Sutter Bypass

Butte Creek/Sanborn Slough Bifurcation Upgrade Project, October, 1998 to December 2000

- First fish passage improvement project to be funded and implemented in the Lower Butte Creek Project area.
- Initial funding of \$1 million through the Sacramento National Wildlife Refuge
- Administered by California Waterfowl Association
- Fish ladder and control structures completed December 1, 1999.
- High-flow spillway, power controls, and remote sensing to be constructed in year 2001, pending funding of \$1,000,000 additional cost.

Phase 2 Engineering and Permitting September 1999 through May, 2001

- Engineering design and permitting on preferred structural alternatives.
- Funded by: CALFED, US Bureau of Reclamation, Anadromous Fish Restoration Program
- Administered by: Ducks Unlimited
- Consultants: California Waterfowl Association, Jones and Stokes Associates, Montgomery Watson, Ensign and Buckley, Borcalli and Associates, additional consulting engineering firms.

Structures to be included:

- North and End Weirs on the Wild Goose Club
- White Mallard Dam and associated diversions
- Morton/Mile Canal/Field and Tule Weir Complex
- Driver's Cut Outfall
- Colusa Shooting/Tarke Weir Outfall
- East/West Diversion Weir
- Weirs 5, 3, and 1 in the Sutter Bypass
- Lift Pumps/Diversions on Butte Creek/Butte Slough/Sutter Bypass

Cooperative Management Agreement-Butte Sink January, 2000 through May, 2001

- Phase 1b analysis of fish passage in Butte Sink identifies Butte Sink as valuable rearing habitat for juvenile salmonids.
- CALFED funded plan for cooperative management to benefit fish passage to be completed June, 2001
- This agreement between the wetland operators in the Butte Sink will ensure that the system is operated to maximize the benefits to fish and wetland dependent wildlife.

Phase 3 Construction

- Drumheller Slough Exclusion Structure funded by AFRP through CWA. To be constructed in summer, 2000 by Ensign and Buckley, Consulting Engineers.

CALIFORNIA WATERFOWL ASSOCIATION

SITE SPECIFIC AGREEMENT

**FORAKER PUMPS
SURVEY, DESIGN AND PERMITTING**

This Agreement is effective this Thirtieth day of April, 2000 between California Waterfowl Association. (hereinafter "CWA") and Eric A. Foraker, as agent for Mary Suzanne Foraker and the Henria P. Compton Trust (hereinafter "Cooperator").

PURPOSE, CWA has entered into an agreement with the Ducks Unlimited, U.S. Department of Interior, Bureau of Reclamation ("BOR") for the purpose of improving fish passage throughout the Lower Butte Creek region of the Sacramento Valley of Northern California which agreement is attached as Exhibit A of this Agreement.

WHEREAS, CWA and Cooperator have entered into this Agreement to complete the survey and design and permitting for the development of fish passage improvements to the pumps on Foraker lands (hereinafter "Site").

NOW, THEREFORE, in consideration of the above premises and other terms and conditions listed herein, CWA and Cooperator agree to undertake the survey, design, and permitting of the Project on the Site as follows:

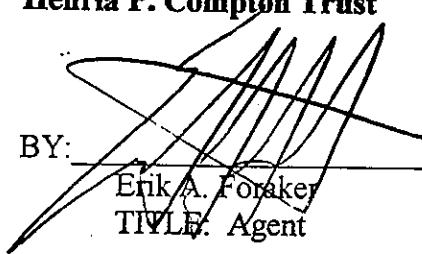
1. CWA agrees to be responsible for one-hundred percent (100%) of actual costs incurred in the survey, design, and permitting for the development of the Site in accordance with Exhibit B. Cooperator shall have no financial obligations relating to these activities.
2. CWA agrees to provide all reasonable and necessary services to ensure the timely completion of the survey, design, and permitting for the development of the Site.
3.
 - a. CWA appoints Robert Capriola as its Project Officer.
 - b. Cooperator appoints Randy Johnson as its Project Officer.The parties may change their respective Project Officer at any time by providing the other with the name of their new Project Officer.
4. At Cooperator's request, CWA agrees to work with Cooperator in an inspection of the survey and design work prior to Cooperator's approval of Project in order to determine whether CWA has satisfactorily completed the survey and design for development of the Site as identified and described in Exhibit C.
5. CWA and the Cooperator agree to freely exchange Project information and to review, study, and consider modifications to the design of the Site pursuant to the terms of this Agreement.
6. CWA warrants that appropriations sufficient for the completion of the survey and design for the development of the Site have been administratively allocated. CWA and the Cooperator agree that this Agreement shall not be construed as binding CWA to expend in any one fiscal year any sum in excess of authorized appropriations administratively allocated for the

purpose of this Agreement for that fiscal year, or to involve CWA in any contract or other obligation, other than this Agreement, for further expenditure of money in excess of such appropriations or allocations.

7. Period of Performance on this Agreement will end on June 30, 2001. CWA and the Cooperator agree that either party may terminate this Agreement by providing thirty (30) days written notice thereof to the other party.
8. The Cooperator agrees to permit CWA, Ducks Unlimited, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game, and the California Department of Water Resources ingress to and egress from the project areas. Right of entry for such purposes will require Cooperator's prior consent.
9. To recognize the cooperative nature of the Project, any oral or written communications related to the project will acknowledge all parties' contributions to the project.
10. During the project, CWA will provide Cooperator with a monthly progress report. At the completion of the survey, design, and permitting phases, CWA will provide to Cooperator a complete document set, including but not limited to correspondence, survey maps, *FIELD NOTES*, *MRM* memorandums, design and permit applications, approved permits and final reports.

**Mary Suzanne Foraker and the
Henria P. Compton Trust**

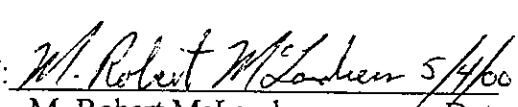
BY:


Erik A. Foraker
TITLE: Agent

4/27/00
Date

CALIFORNIA WATERFOWL ASSN.

BY:


M. Robert McLandress
TITLE: President

5/4/00
Date